Message

From: AccardiDey, AmyMarie [AmyMarie.Accardi-Dey@wsp.com]
Sent: 6/22/2020 5:08:10 PM
To: Anne Hayton [Anne.hayton@dep.nj.gov]; Smeraldi, Josh [Smeraldi.Josh@epa.gov]
CC: Kozlowski, Nicole [Nicole.Kozlowski@dep.nj.gov]; Allan Motter [allan.motter@dep.nj.gov]; Bounkhay, Mina [mina.bounkhay@wsp.com]; Nickerson, Jay [jay.nickerson@dep.nj.gov]
Subject: RE: Riverside Industrial Park SF Site: Final NJDEP Comments for soil issues - June 8, 2020 draft FS

Josh and Anne – For completeness, here are responses to this email
Regards
AM

AmyMarie Accardi-Dey, PhD, PG, CPC
Phone: 1-914-620-5110

From: Hayton, Anne <Anne.Hayton@dep.nj.gov>
Sent: Friday, June 19, 2020 11:08 AM
To: Smeraldi, Josh <Smeraldi.Josh@epa.gov>
Cc: Kozlowski, Nicole <Nicole.Kozlowski@dep.nj.gov>; Motter, Allan <Allan.Motter@dep.nj.gov>; AccardiDey, AmyMarie <AmyMarie.Accardi-Dey@wsp.com>; Bounkhay, Mina <mina.bounkhay@wsp.com>; Nickerson, Jay <Jay.Nickerson@dep.nj.gov>
Subject: Riverside Industrial Park SF Site: Final NJDEP Comments for soil issues - June 8, 2020 draft FS

Josh - As mentioned earlier this morning, provided below is the balance of our assessment of soil in the current draft FS. Our teams have been in discussion regarding collective review of the 2nd Draft FS for this project, dated June 8, 2020. Due to this project's expedited schedule, EPA requested that we first focus our attention on PPG's application of the Department's compliance averaging guidance in the FS. Through review and conference call discussions, we came to the mutual conclusion that based on limitations with site characterization, compliance averaging could not be used at this time for remedial decision-making, and especially for remedial footprint identification. Our comments were provided to your team on June 17, 2020. [Agree]

This topic and a few others were discussed during a conference call later that morning. In addition, you asked that we notify your team of any other significant comments on the FS. As a result, a follow-up email was provided later that day concerning the topic of waivers indicated in the FS, and application of Department policies regarding NAPL (free and residual product) and Impact to Ground Water Soil Screening Levels. Through subsequent discussion with your team, the Department's policy on the need to address all free and residual product (N.J.A.C. 7:26E-5.1 (e)) has been incorporated in the FS. [Correct. WSP and NJDEP worked on this text.]

Our review also revealed that PPG had prematurely dismissed evaluation of the Department's IGWSSLs due to the presence of historic fill on site. Provided below is our detailed response on this topic, which indicates that although PPG inappropriately dismissed evaluation of site soil conditions using IGWSSLs, ***site factors in relation to Department remedial action guidance on this topic (referenced below) result in this concern being addressed through the draft soil remedial action alternatives under consideration for this project.*** The information below is provided to further assist you and your team in addressing Department remedial action polices considered applicable to this project in the next draft FS and the follow-on remedial acton decision documents. -- Please note that it is difficult for us to recommend specific text language to the FS since we do

not have the current version undergoing significant revision (post 8 June 2020) by your team. However, specific language from Department guidance is provided relevant to the site-specific conditions revealed in the RI, that can be incorporated as EPA deems appropriate. For this purpose specific Department guidance is drawn from: [Text on IGWSSL was reviewed with NJDEP.]

Capping of Inorganic and Semivolatile Contaminants for the Impact to Ground Water Pathway, Version 1.0- March 2014, found at: https://www.nj.gov/dep/srp/guidance/rs/igw_capping.pdf.

Capping of Volatile Contaminants for the Impact to Ground Water Pathway, January 2019, Version 1.1, found at: https://www.nj.gov/dep/srp/guidance/rs/igw_vo_capping.pdf.

Comments

1. FS Section 1.14, Chemical Specific ARAR Evaluation, page 65: In this section, where the presence of historic fill is described, the FS authors conclude: "Groundwater contains many of the typical historic fill contaminants including but not limited to lead, arsenic, benzo(a)pyrene, iron, and manganese. Due to these factors, development of a site-specific IGWSSL and subsequent IGWSSL ARAR comparison was not warranted." [This sentence has been removed.]

Response:
a. The language provided by the EPA team this morning for "Step 2: Identification of ARARs/TBCs" relative to IGWSSLs is acceptable and can be reflected in the above-referenced section too. [Agreed]

b. The Department agrees that further evaluation of soil remedial actions for iron and manganese at this site is not warranted. [Agreed] And although historic fill exists across most of the site, RI information revealed that discharges to HF have likely occurred given the observed concentrations and contaminant patterns in certain areas of the site, for example, lead, arsenic and PAHs, in the vicinity of Building #12. In addition, there are other contaminants detected in historic fill and soil which are not typical HF constituents, such as volatile organic compounds (both chlorinated and non-chlorinated) and PCBs. And, at one location near building #12 (Lot 63) naphthalene is noted in both surface and subsurface soil at levels exceeding both non-residential direct contact soil remediation standard (NRSRS) of 17 ppm and the impact to groundwater soil screening level (IGWSSL) of 25 ppm. [Agreed – language has been added to FS to connect contaminants to site operations.]

Our fatal flaw review indicates that example contaminants in vadose zone HF/soil which should be evaluated relative to remedial actions include the following (indicated with the Department's associated default IGWSSL): [Anne, please give me a call because the soil were screened against NJDEP NRDCSRS which are ARARs. IGWSSL are To Be Considered since they are not promogulated standards.

Benzene: 5 ppb

Methylene Chloride: 10 ppb

Trichloroethylene: 10 ppb

Tetrachloroethylene: 5ppb

RI Table 2-7A reveals that Benzene, and many other VOCs detected in vadose zone soil are either frequently greater than IGWSSLs or reported with elevated detection limits relative to their associated IGWSSL. This

renders the areas represented by these samples as suspect and in need of some form of further assessment and remedial action. Department policies, as referenced below, provide several methods for addressing the presence of soil contaminants at levels greater than IGWSSLs depending on site-specific conditions observed in both soil and groundwater. In addition to either removal or treatment of vadose zone soil, use of institutional controls (deed notices and CEAs) and engineering controls are applicable.

Provided below are excerpts from Department Guidance on this topic.
Capping of Volatile Contaminants for the Impact to Ground Water Pathway, January 2019, Version 1.1 :

"The conditions under which volatile organic contaminant exceedances of IGWSSLs and/or site-specific IGWSRSs are allowed under a capped site are presented in this guidance document. By definition, this is a restricted use remedial action and therefore a deed notice is required pursuant to N.J.A.C. 7:26 C. All remediation involving deed notices require a Remedial Action Permit (RAP) for soil for the long-term maintenance of this engineering control."

And,

"For cases where ground water is already contaminated, an MNA approach may be used (with additional requirements) to manage the site. Both types of cases require the installation of a low permeability cap, upgrading an existing cap to one that exhibits low permeability, ongoing maintenance and monitoring of the low permeability cap, and removal of free and residual product, as practicable."

Finally, Section 5 and Figure 1 of the subject guidance provides the following guidance regarding conditions relevant to Riverside, i.e., where contaminated groundwater exists:

"The use of an engineering control consisting of a low permeability cap as a remedial alternative to address the IGW pathway may be evaluated when ground water is already contaminated with VOCs and the contamination is at least partly due to a previous discharge in the vadose zone. As stated previously, capping for IGW is to provide another remedial alternative/compliance option when addressing the IGW pathway. As such, before choosing a capping remedy for IGW, the site must be fully investigated per the Technical Requirements for Site Remediation including receptor evaluation.

Please note that this remedial strategy/compliance option may not be appropriate in all situations, in particular, in case where the soil contamination is close to a fluctuating water table or where there are elevated levels of soil contamination present.

When capping is selected as a remedy to address IGW, Monitored Natural Attenuation (MNA) can be used to demonstrate that, while contamination to the ground water from the vadose zone may still be occurring, the contribution from the vadose zone is decreasing and is predicted to cease by the end of the Classification Exception Area (CEA) timeframe that is established for the contaminated ground water.

In establishing the CEA, a discrete timeframe must be determined by modeling (no indeterminant timeframes will be acceptable), demonstrating compliance with the groundwater quality criterion in accordance with the Monitored Natural Attenuation Technical Guidance, (www.nj.gov/dep/srp/guidance/). "

Reminder: The above statements concerning MNA are for soil contamination but are not applicable to areas/situations with NAPL, since MNA is prohibited as a stand-alone action for free and/or residual product per N.J.A.C. 7:26E-5.1 (e).

2. If capping is utilized for addressing VOCs found at levels greater than IGWSSLs (based on future design sampling), please be aware that capping does not preclude the need for future monitoring for vapor intrusion (VI) concerns, particularly at a site with a high (or fluctuating) water table. There are a few buildings that have been identified for VI issues. Through future site monitoring, if ground water concentrations of VOCs exceed vapor intrusion Ground Water Screening Levels (GWSLs) within trigger distances from existing buildings, a vapor intrusion investigation should be performed in accordance with the Vapor Intrusion Technical Guidance.

3. Given the presence of historic fill across most of the Riverside Industrial Park site, the Department's Historic Fill Guidance, https://www.nj.gov/dep/srp/guidance/srra/historic_fill_guidance.pdf, was previously recommended and used for this project. Relative to impact to groundwater concerns, Section 5.2.2 is applicable and states:

"...If analytical results confirm that the ground water associated with the historic fill material contains any contaminant that exceeds the Department's ground water remediation standards, N.J.A.C. 7:26D-2, the investigator must propose to establish a ground water classification exception area (CEA).

The extent of the CEA may be based on the property boundaries of the site and the duration of the CEA may be identified as indeterminate because it is presumed that the historic fill material will remain in place."

It is hoped that the above information assists EPA through the FS towards a Proposed Plan while incorporating Department SRWMP rules and policies considered applicable to this project to the extent possible. Please feel free to contact me if there are any questions on the information provided above.

Thanks, Anne

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